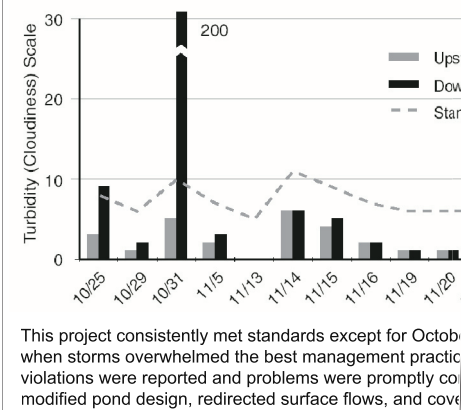## Providing structure for WSDOT's EMS

WSDOT is developing its EMS to be consistent with ISO 14001, the international standard for environmental management systems. A policy manual and guidance and support document is under development that applies the standard to WSDOT's operations. WSDOT will also have associated procedures to implement the EMS policies.

Environmental Management System (EMS)
EMS POLICIES MANUAL
Washington State Department of Transportation
DRAFT
TIER 1 DOCUMENTATION

Environmental Management System (EMS)
GUIDANCE AND SUPPORT
Washington State Department of Transportation
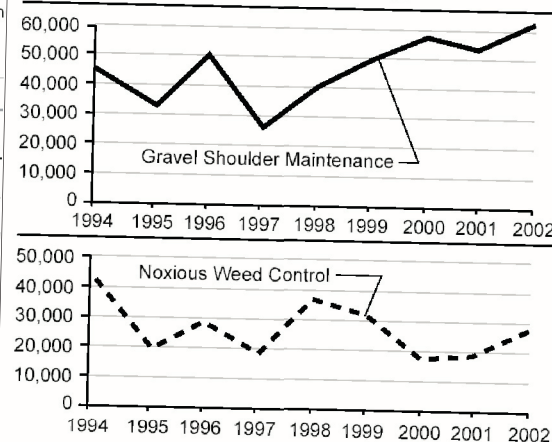**DRAFT**
TIER 2 DOCUMENTATION

Reporting out: Being accountable for our efforts

Accountability is about communication, internal and external. WSDOT reports out quarterly on many activities, including its environmental efforts, in the Gray Notebook. The Gray Notebook includes a compilation of measures for legislators, media, the public and WSDOT itself.
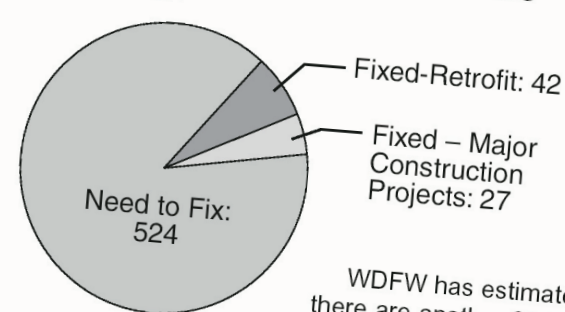
State Route 18 Highway Widening: Cedar River

This project consistently met standards except for Octob[...] when storms overwhelmed the best management practi[...] violations were reported and problems were promptly co[...] modified pond design, redirected surface flows, and cove[...]

Major Herbicide Products: Overall Usage Trends
Pounds of Active Ingredient Applied Annually, 1994-2002

Gravel Shoulder Maintenance

Noxious Weed Control

Replacement Wetlands: Monitoring Complete
1988-2001: Total Number of Sites: 34

Successful: 30 Sites 222 Acres

Not Completely Successful: 4 Sites 5 Acres

"Successful" = these sites have met their regulatory requirements
"Not completely successful" = these sites have yet to meet require[...]
and plans are needed to ensure effective wetland replacement.

Replacement Wetlands: Sites Still in Monit[...]
2000-2001: Total Number of Sites: 62

Meeting All Standards: 16 sites 78 Acres

Meeting Some Standard[...] 37 Sites 131 Acres

Meeting No Standards: 9 sites 24 Acres

Already Identified WSDOT Fish Barriers
December 31, 2001

Fixed-Retrofit: 42

Fixed – Major Construction Projects: 27

Need to Fix: 524

WDFW has estimated there are another 33,000 non-WSDOT fish passage barriers located on city, county, federal, private and tribal roads.

Source: WSDOT/WDFW Barrier Removal Program

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Washington State Department of Transportation

Environmental Management System (EMS)
November, 2003

A formal Environmental Management System (EMS) is a tool used by enterprises across the country and around the world to improve environmental performance and compliance. Seven building blocks focused on a particular line of business or activity, comprise the heart of an EMS.

These seven building blocks are:

- **Legal and other requirements**
  Clearly outline all environmental laws, regulations and agreements that apply to WSDOT operations.
- **Written procedures**
  Procedures that instruct WSDOT staff and contractors on how to conduct work activities in compliance with our legal and other requirements.
- **Training**
  Training to ensure those that conduct certain activities for WSDOT know how to do it in a compliant manner.
- **Roles and duties**
  Ensure WSDOT staff and contractors know what they are supposed to do under the EMS.
- **Inspection/monitoring/corrective action**
  Ensure a process is in place to check WSDOT's work for compliance with applicable legal and other requirements and correct any problems that arise.
- **Performance measurement**
  Measure WSDOT's performance against pre-determined targets, the results being reported to the public and reviewed by management.

In the EMS now being constructed at WSDOT, we are assembling the seven fundamental blocks in relation to construction, maintenance and operations, the materials lab and modal programs such as Washington State Ferries. These areas already have in place very strong systems to ensure compliance with environmental laws (for example, Constructions's Erosion and Sediment Control Program, Maintenance Manual for Water Quality and Habitat, Ferries Safety Management System).

The Environmental Management System demonstrates compliance and responsible management. It is not just about what we do but who we are as an agency.

The EMS approach builds on these strengths and uses the seven building blocks to create Environmental Management Programs that fill in gaps and integrate the environmental activities into every-day operations,

Certification
Once WSDOT's EMS is built and several areas of the Department are implementing Environmental Management Programs, the next step will be to decide whether or not to "certify." Certification means that an independent audit confirms that the EMS meets all requirements of the international standard.

training programs and regular performance reports. EMS puts a structure around our existing environmental activities that organizes, and enhances and creates feedback loops to management that ensure continued improvement.

WSDOT's EMS will be implemented in stages. Compliance with environmental laws and permits is job one. As such WSDOT has concentrated on developing a solid compliance assurance program.

Procedures March 2003 Instructional letters issued, outlining procedures for ensuring compliance and reporting non-compliance events for: - Construction   - Maintenance   - Ferries

Training Regional construction staff have been trained on new compliance procedures. 38 environmental courses are now offered. Ten are in development.

Tracking WSDOT is developing an electronic system to track all environmental commitments through the life cycle of a project (design, construction and maintenance), including any non-compliance events.

Auditing Resource agencies and WSDOT are collaborating on auditing procedures through an inter-agency Compliance Subcommittee.
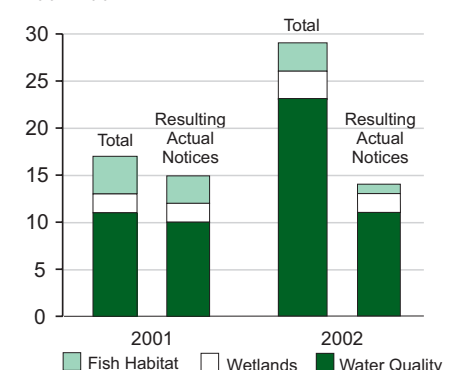
The next step is to complete Environmental Management Programs for major delivery areas of Construction and Maintenance. Washington State Ferries will continue its effort to integrate Environmental Management Programs into its Safety Management System through the next biennium.

Environmental Compliance Assurance: Tracking Violations and Corrective Actions

As an important step in developing a full-scale EMS, WSDOT in September 2002 began an agency-wide effort to consolidate information on environmental violations and compliance activities. This will supplement prior practice where this information was maintained within regional or program offices. Dispersed information allowed little opportunity to note trends and develop performance measures to strengthen the agency's overall environmental compliance and performance. The effort that began in 2002 included data collection for a 2001 and 2002 agency baseline, and relied on localized record-keeping and personal interviews with managers around the agency.

Data for 2001 and 2002 were obtained through an interview process initiated in September 2002. Since these data represent project managers ' "best memory" of the occurrence of a particular event, the increase in reported events in 2002 could be related, in part, to people 's ability to recall more recent events. Further, WSDOT has improved its compliance verification procedures.

Non-Compliance Events
2001-2002

Environmental Management Programs at WSDOT

● In Place ⊖ In Development ○ Gap to Fill N/A Not Applicable

CONSTRUCTION

Column headers for each activity: Legal, Written Procedure, Training, Defined Roles & Duties, Inspection Monitoring Corrective Action, Record Keeping, Performance Measure

Rows: Water Quality, Hazardous Matls., Habitat Protection, Air & Noise, Cultural & Historic

Activities: Demolition, Earthwork, Surface Preparation, Paving, Structural

MAINTENANCE & OPERATIONS – Highway Asset Management

Column headers for each activity: Legal, Written Procedures, Training, Defined Roles & Duties, Inspection Monitoring Corrective Action, Record Keeping, Performance Measure

Rows: Water Quality, Storm Water, Hazardous Matls., Habitat Protection, Air & Noise, Cultural & Historic

Activities: Roadway Maintenance & Operations, Drainage Maintenance & Slope Repair, Roadside & Landscape Maintenance, Bridge & Urban Tunnel Maint. & Ops., Snow & Ice Control, Traffic Services, Support Operations, Third Party Damages & Disaster Ops.

MAINTENANCE & OPERATIONS – Facility Management

Column headers for each activity: Legal, Written Procedure, Training, Defined Roles & Duties, Inspection Monitoring Corrective Action, Record Keeping, Performance Measure

Rows: Water Quality, Storm Water, Hazardous Matls., Habitat Protection, Air & Noise, Cultural & Historic

Activities: Haz. Mat. Storage Handling & Disposal, Asbestos Management, Rest Stops, Storage Tanks, Contaminated Site Cleanup

What does this mean?

These charts show how WSDOT has organized its management programs for construction and maintenance activities. Similar charts will be computed in other areas.

☑ Construction
☑ Maintenance
☐ Washington State Ferries

This chart does not address the adequacy of these management programs.
That assessment, and any necessary improvements will be done as the EMS is developed and implemented.